

### **REMARKS**

Claims 1-36 are pending in the application. In this response Applicants provide the following Remarks to supplement the Response filed on October 6, 2004.

#### **Rejection Under 35 U.S.C. §112, Second Paragraph**

In the Office Action dated May 6, 2004, the term "fibrous root explants" in step (a) of Claim 1 was asserted to be unclear. When read in the context of the specification, the term "fibrous" refers to the lateral root of a cotton seedling used as an explant, and not to the explant. As would be understood by one of skill in the art, the term "fibrous root" refers to the appearance of the lateral root on the seedling. Claim 31 has been drafted to make clear that the term "fibrous" refers to the root and not to explant.

Further to the Examiner's comment that the name "multi-effect triazole" does not name a chemical compound, Applicants submit that the term "multi-effect triazole" is the common name for the plant growth regulator PACLOBUTRAZOL; IUPAC name (2RS, 3RS)-1-(4-chlorophenyl)-4, 4-dimethyl-2-(1H-1, 2, 4-triazol-1-yl) pentan-3-ol, as would be understood by one of skill in the relevant art. Thus, the term "multi-effect triazole" is not indefinite as would be understood by one of skill in the relevant art.

Applicants respectfully request that rejection under 35 U.S.C. § 112, second paragraph, as it may be applied to the present claims be withdrawn, in view of these additional comments.

#### **Rejection under 35 U.S.C. §102**

Claim 1 is rejected under 35 U.S.C. § 102(b) over PCT publication WO 97/12512, which corresponds to U.S. Patent No. 5,846,797, issued to Strickland.

Applicants have respectfully traversed this rejection as it may be applied to the present claims. They now provide the following additional comments.

The Strickland patent publication relates to a method for regenerating cotton plants from explant tissue where the explant is not cultivated on cotton initiation medium having exogenous plant hormones. The publication states, but does not show, that the method is applicable to numerous kinds of cotton tissue, including root, at page 11, lines 12 - 15 and in claim 11. The explants described in the examples of the publication are only from hypocotyls. There are no actual examples even attempting transformation of callus derived from root explants, or any tissues other than hypocotyl, nor are there examples demonstrating the regeneration of whole transgenic plants from calli derived from hypocotyl explants.

The examples of the Strickland publication describe only kanamycin "tolerant" embryonic callus. The examples do not show that the embryonic calli produced on hormone free medium necessarily form somatic embryos or that such embryos can germinate into plants. Moreover, the kanamycin "tolerance" exhibited by the some of the calli doesn't necessarily indicate that there was a successful integration of a foreign gene. Thus, the examples of the Strickland publication do not provide a basis for concluding that the Strickland method can be used to obtain transgenic plants using any cotton plant tissue, much less explants of fibrous roots of cotton seedlings as provided by the method of present application.

Applicants respectfully ask that the foregoing comments be considered together with the remarks submitted previously and that the rejection under 35 U.S.C. §102(b) over Strickland, as it may be applied to the present claims, be withdrawn.

**Rejections under 35 U.S.C. § 103(a)**

Claims 1-4 and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Strickland, WO 97/12512, in view of Liang et al., *Acta Agronomica Sinica* (1997) vol. 23, pages 220-225 and what is asserted to be applicant's admitted prior art. As discussed above, Strickland reference does not disclose the methods of the present application as set forth in the claims submitted with Applicant's response on October 6, 2004. The Liang abstract merely describes the use of a multi-effect triazole in medium for anther culture of wheat. The description of the prior art in the Background section of Applicant's specification at page 1, lines 16 to 24 describes cultivated cotton varieties. The description on page 2 of the specification, lines 1 to 15, generally looks forward to future, yet unachieved, goals of those presently working in this art. The remainder of page 2 of the specification, lines 16 to 33, discusses tissue culture of cotton. Nothing in those passages, including the cited references, discloses the elements of the novel method of the present application, when viewed either alone or with the disclosures of Strickland and Liang et al.

Claims 1 and 14-30 are further rejected over Strickland in view of Firoozabady et al., *Plant Molecular Biology* 10 (1987) pp. 105-116. Claims 1-30 are also rejected over Strickland in view of Firoozabady et al., further in view of Liang et al. (abstracts). Firoozabady does not disclose or even suggest the use of root as a source of explants, nor does the reference suggest the use of multi-effect triazole in a method for preparing transformed cotton. Neither the combination of Strickland, Firoozabady, nor the combination of those references taken with Liang describes, or even suggests, the novel method for producing transgenic cotton plants of the present claims.

Applicants respectfully ask that the rejection of claims 1-30 under 35 U.S.C. 103(a) be withdrawn, as the rejection may be applied to the claims submitted with the response of October 6, 2004.

Applicants believe the present claims are in condition for allowance and respectfully request a timely notice to that effect. Should additional issues arise that can be effectively dealt with in a timely discussion with Applicant's representative, the Examiner is respectfully asked to contact the undersigned Representative so that the case can be quickly passed to issue.

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Respectfully submitted,

By 

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